Remarks:

Claims 1 and 5-8 currently are pending and have been examined here. All claims stand rejected, however rejections based on Shibata (U.S. Patent No. 4,636,270) as a primary reference have been withdrawn.

Claims 1 and 5 are rejected as obvious over Carrano et al., U.S. Patent No. 6,139,652 (hereinafter "Carrano"). Carrano is cited by the Office as disclosing a silver alloy which is at least 99.5% silver, with the remainder consisting of Al, Sb, Cd, Ga, Ge, In, Li, Mn, Mg, Si, Sn, Ti and Zn. The Office Action refers to col. 1, lines 48-58 and Tables 1-3 of Carrano, however the reference does not disclose, mention or even hint at a composition containing silver and all of the other 13 metals. The text of Carrano discloses only silver alloys consisting of silver and "an element, or an oxide of an element, selected from" the listed metals. Therefore, this cited text discloses only Ag-In alloys and Ag-Sn alloys, but not Ag-In-Sn alloys.

The Tables in the Carrano reference list a number of alloys, only some of which are alloys that contain silver plus two additional elements. None of these tertiary alloys contain Ag, In and Sn. Among all the alloys listed in Tables 1-3 of Carrano, only alloy nos. 4, 40 and 41 contain In and only alloy no. 9 contains Sn. None contain both.

Thus, Applicant submits that the Office is greatly overstating the compositions which are taught by Carrano. The closest compositions of Carrano to the invention claimed here are alloy nos. 4, 9, 40 and 41, and general disclosures concerning adding an element selected from a group that comprises In and Sn. These compounds all contain 99.90% pure silver with either In or Sn to result in a composition containing at least 99.5% silver and up to 0.05% of one of In or Sn. These compositions do not "overlap" with the claimed invention since there is absolutely nothing in Carrano which teaches or suggests combining In and Sn in a tertiary silver alloy, or indeed using In or Sn in combination with any other metal, since the reference at no time refers to or even hints at a tertiary silver alloy that contains In or Sn.

Unless the Office can point to some disclosure that teaches a tertiary alloy of Ag-In-Sn or some teaching that guides the reader to combine these elements, there is no basis whatsoever for

the present rejection. It would not have been obvious for the skilled person to select amounts of In and Sn from the compositions of Carrano because Carrano disclosed no compositions containing In and Sn, only compositions containing In or Sn. Since nothing guides the reader to combine those elements in the alloy, there is no overlap of the art with the claims and M.P.E.P. § 2144.05 does not apply. Further, there is no motivation to combine the elements to achieve the invention.

The Office Action seems to assert that the tertiary alloys of Table 1 in Carrano somehow are relevant to this case. The Office has improperly concluded that since Al, Mn, Li and Mg may be combined by Carrano, that the art teaches one to combine any two of the elements. The Office, however has cited absolutely nothing in the prior art which indicates this. Carrano only states that "an element" is added to silver, and then provides examples where a small number of the elements are combined. No reason is given for the combinations which are made and there is no hint whatsoever that any other elements should be combined, much less In and Sn.

The Office mentions that patent references are "relevant for all they contain," citing M.P.E.P. § 2123(I). This M.P.E.P. section instructs one to consider non-preferred embodiments or optional embodiments that are disclosed in a reference as part of the prior art. It does not instruct the Office to consider embodiments that are not disclosed. The key to this M.P.E.P. section is to consider all that the art contains, but does not encourage making up embodiments using hindsight that are not disclosed or described in any way and are not mentioned or even hinted at in the reference. Carrano does not disclose embodiments where any two elements in the list are combined and does not disclose embodiments where In and Sn are combined. Therefore it does not "contain" those embodiments as prior art. The Office's statement that "it would be expected that up to two elements from [the list] could be selected for a silver base alloy" is made without any support in the art and is based completely on hindsight.

The Office's reliance on M.P.E.P. § 2144.08(4)(a) also is completely misplaced. If the genus of compositions disclosed by Carrano does not include the claimed composition, as it does not, for the reasons discussed above, the size of the genus is irrelevant. At most, Carrano

discloses alloys of silver and one other element from the list and tertiary alloys containing silver and Al, Mn, Li and Mg, all of which are far lighter metals than the claimed In and Sn and would not be considered equivalent in the art. There is nothing in Carrano to connect Al, Mn, Li and Mg to In and Sn, or that would have guided the reader to consider Ag-In-Sn alloys to be part of the "genus" of compositions of Carrano.

There must be some evidence in the Carrano reference that teaches, suggests or guides the reader to the invention compositions to make out a valid *prima facie* case of obviousness. Here, the Office has cited only binary alloys and tertiary alloys that do not encompass or overlap the claimed alloys and made unsupported conclusions that all tertiary alloys would be expected or envisioned regardless of the complete lack of any suggestion or guidance toward those alloys in the art. The Office still has not cited any disclosure in Carrano that teaches or suggests tertiary alloys of In and Sn.

Applicant requests reconsideration of the claims in view of what the cited art actually contains rather than wishes in hindsight concerning the art. The Office has not met its burden of factually supporting its conclusion of obviousness, because such a conclusion must be based upon facts gleaned from the art and not hindsight. M.P.E.P. § 2142. Any obviousness rejection must be based upon articulated reasoning with an underpinning of facts. Merely stating that a reference teaches tertiary alloys of Ag-In-Sn does not make it so. See *Id.*

Applicant requests withdrawal of the rejection of claims 1 and 5 as obvious over Carrano.

Claims 6 and 8 are rejected as obviousness over Carrano, discussed above, alone or in view of Okamura et al., U.S. Patent No. 6, 104,530 (hereinafter "Okamura"). The disclosures of Carrano are discussed at length above. Both of claims 6 and 8, rejected here, depend from claim 1, which recites an Ag-In-Sn tertiary alloy. For the reasons discussed above, Carrano alone does not disclose, suggest or even hint at such alloys and the Office has cited nothing in this reference that guides the reader to combine these elements.

The Okamura reference is cited for disclosing use of silver alloys for sputtering target to make metal film layers. It does not disclose the claimed alloys or even suggest them. Since the

rejected claims each contain the limitations of the base claims, this combination of references cannot serve as proper grounds for a *prima facie* case of obviousness. Neither reference alone nor their combination inform the art that one should modify Carrano's teachings of various non-overlapping metal alloys with silver to produce the claimed Ag-In-Sn alloys, and Okamura does not provide any related evidence or any motivation to change Carrano's teachings, regardless of uses for silver alloys.

Applicant therefore submits that this rejection should be withdrawn and requests reconsideration of these claims.

Claim 7 is rejected as obvious over Carrano, discussed above, in view of Shibata et al., U.S. Patent No. 6,338, 889 (hereinafter "Shibata"). Carrano, as discussed above, does not teach tertiary alloys containing Ag, In and Sn, and does not discuss tertiary alloys generally or provide examples of any tertiary alloy containing In or Sn, much less both. As discussed above, this reference lacks any teaching or guidance to adapt the limited disclosures of Carrano to produce the claimed invention, and provides no instruction to do so. Shibata is cited for discussing using silver alloys for optical information recording disc reflective layers. This information does not inform the art concerning the alloys claimed here and does not provide the specific motivation necessary to modify Carrano as needed.

These combined references therefore do not render obvious claim 7 for the reasons discussed above with respect to claim 1, the limitations of which are contained in claim 7. Applicants therefore request withdrawal of this rejection.

In summary, the primary reference Carrano does not disclose tertiary alloys as claimed here and does not provide any guidance that would lead a skilled person to these alloys. The mere fact that Carrano discloses some tertiary alloys does not guide the reader to what is claimed since none of them contain either In or Sn, much less both. The Carrano reference does not guide one to modify those tertiary alloys by discussing In or Sn or both or suggesting that other tertiary alloys should be made and a skilled person would not deduce the claimed Ag-In-Sn alloys for Carrano's disclosure of Al, Mn, Mg and/or Li tertiary alloys. There is nothing in this reference

that would lead a skilled person to the invention. The secondary references do not make up for the deficiencies of Carrano. Applicant requests withdrawal of all rejections made on grounds of obviousness.

Applicant requests reconsideration of the application and allowance of all claims.

This response is timely. The Office is authorized to charge Deposit Account 02-2135 with any fees deemed necessary with respect to this submission.

Respectfully submitted,

By _____

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